

CHURAYAN, A.L.

~~CHURAYAN, A.L.~~

Using bent metal braces in major repairs to walls of brick  
buildings. Trudy Inst. stroi. dela AN Gruz. SSR 3:151-170  
'51.

(MLRA 9:10)

(Building--Repair and reconstruction)  
(Walls)

DZHABUA, Sh.A.; NAPETVARIDZE, Sh.G.; CHURAYAN, A.L.

[Album of details of earthquake-proof construction elements for apartment houses and public buildings] Al'bom detaley seismostoikikh konstruktsey dlia zhilykh i grazhdanskikh zdaniy. Razrabotali: Sh.A. Dzhabua, Sh.G. Napetvaridze, A.L. Churayan. Tbilisi, 1952. 33 p.

(MLRA 9:9)

1. Akademiya nauk Gruzinskoy SSR, Tiflis. Institut stroitel'nogo dela.

(Earthquakes and building)

CHURAIAN, A.

Some peculiarities of conic structures. Tbilisi, Izd-vo Akad. nauk Gruzinskoi SSR, 1977. 60, 3 p.

1. Domes. 2. Architecture - Designs and plans.

CHURAYAN, A.; DZHABUA, Sh.; ZAVRIYEV, K.S., professor, redaktor; DZHAPARIDZE, N.A., tekhnicheskii redaktor.

[Some characteristics of axisymmetric buildings] Nekotorye osobennosti tsentricheskikh zdani. Izd. 2-e. Tbilisi, Izd-vo Akademii nauk Gruzinskoi SSR, 1954. 58 p. [Microfilm] (MLBA 7:11)

1. Deystvitel'nyy chlen Akademii nauk Gruzinskoy SSR (for Zavriyev)  
(Structures, Theory of)

CHURAYAN, A.L.; DZHABUA, Sh.A.; KAPETVARIDZE, Sh.G.; LOMADZE, D.R.

Basic principles of designing earthquake-resistant buildings of  
rigid type. Trudy Inst.stroi.dela AN Gruz.SSR 5:101-111 '55.

(MLBA 9:8)

(Earthquakes and building)

CHURAYAN, A.L.; DZHABUA, Sh.

Foundations of earthquake resistant buildings. Trudy Inst.stroi.dela  
AN Gruz.SSR 5:113-122 '55. (MLRA 9:8)  
(Foundations) (Earthquakes and building)

CHURAYAN, A.L., kandidat tekhnicheskikh nauk; DZHABUA, Sh.A.

Precast reinforced concrete floors for antiseismic construction.  
Bet. 1 shel.-bet. no.8:282-287 N '55. (MLRA 9:1)

(Floors, Concrete) (Earthquakes and building)

CHURAYAN, A.L.

DZHABUA, Sh.a., inzhener; CHURAYAN, A.L., inzhener

Precast reinforced concrete antisismic chords. Stroi. prom.  
33 no.7:29-32 JI '55. (MIRA 8:9)  
(Earthquakes and building)



CHURAYAN, A.L., kandidat tekhnicheskikh nauk; DZHABUA, Sh.A., inzhener.

Large-sized block foundations and walls for buildings in earthquake areas. Stroi.prom. 33 no.12:26-30 D '55. (MLRA 9:3)  
(Building blocks) (Earthquakes and building)

BYKHOVSKIY, V.A.; DZHABUA, Sh.A.; DUZINKOVICH, S.Yu.; CHURAYAN, A.L.

New "Standards and regulations for building in seismic regions."

Stroi. prom. 35 no.12:30-33 D '57.

(MIRA 11:1)

(Earthquakes and building)

CHURAYAN, A.L.

3(10) **PLANE I MORE INFORMATION** 807/5054  
 Akademiya nauk SSSR. Sovet po seismologii  
 Byulleten', Kratkoizvestiya i teletyazheniya, 1955 No. 5 (bulletin);  
 Kratkiye Polynya Burzhua, 1977, No. 5) Moscow, 1958. 62 p. 1,200  
 copies printed.  
 Repr. M.: S.Y. Meirder, Doctor of Technical Sciences; M. of Publ.  
 House: S.Y. Meirder.  
**PERIOD:** This booklet is intended for scientists working in the field of  
 geophysics and seismology.  
**CONTENT:** This bulletin contains three studies of the Kratkiye Polynya  
 earthquakes which occurred on December 21-27, 1955. The studies include  
 data obtained by the expedition organized by Ya.Y. Gerasimov, Chairman  
 of the Committee for the Seismology of the Academy of Sciences, USSR, in  
 January-February 1956. The members of the expedition included A.L. Kato  
 of the Geophysical Institute of AN SSSR, A.D. Tikhonov of the Geophysical  
 Institute of the Academy of Sciences of the USSR, and A.L. Churayan of the Building Institute  
 of the Academy of Sciences of the USSR.

Card 1/2

of the Academy of Sciences of the USSR. Reference  
 accompany each article.

**TABLE OF CONTENTS:**

Rezhava, Sh.A.; A.L. Kato, A.D. Tikhonov, A.D. Tikhonov, and A.L. Churayan. The Kratkiye Polynya Earthquake of December 21-27, 1955 and its consequences	3
Kato, A.L. Some Results of Seismogeophysical Exploration in the Kratkiye Polynya Earthquake Zone in Connection With Seismic Micro-Zoning (Microgeological Observations)	35
Burkhardt, D.H. Preliminary Results Shown by the Instrument Records of Seismicity in the Kratkiye Polynya Earthquake Zone	55
<b>AVAILABLE:</b> Library of Congress	

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807/5054  
 12-20-55

PHASE I BOOK EXPLOITATION

SOV/5233

Duzhabua, Shalva Andreyevich, and A.L. Churayan

Obosnovaniye izmeneniy nekotorykh trebovaniy "Norm i pravil stroitel'stva v seysmicheskikh rayonakh" (Basis for the Change of Certain Requirements for Construction Norms and Specifications in Seismic Regions) Tbilisi, Izd-vo AN Gruzinskoy SSR, 1960. 49 p. 500 copies printed.

Sponsoring Agency: Akademiya nauk Gruzinskoy SSR. Institut stroitel'nogo dela.

Ed.: R.S. Lordkipanidze; Ed. of Publishing House: L.N. Sarkisyan; Tech. Ed.: A.R. Todua.

PURPOSE: This booklet is intended for construction engineers and scientific workers of construction research institutes.

COVERAGE: The booklet contains a number of amendments to the 1957 regulations governing the construction of earthquake-proof buildings in seismic regions of the USSR. The suggestion to make spans monolithic is considered to be especially important. No personalities are mentioned. There are 7 references: 6 Soviet

Card ~~1/3~~

CHURAYAN, A.L.; DUZINKOVICH, S.Yu.; DZHABUA, Sh.A.

Methods for sealing joints of precast reinforced concrete  
ceilings in seismic regions. Prom.stroi. 8 no.7:26-31  
'60. (MIRA 13:7)

(Earthquakes and building) (Ceilings)

CHURAYAN, A.L., kand.tekhn.nauk

All-Union conference on lowering construction costs and  
improving the quality of earthquake proof construction.

Prom. stroi. 38 no. 12:59-60 '60.

(MIRA 13:12)

(Earthquakes and building)

PHASE I BOOK EXPLOITATION

SOV/5700

Churayan, Artemiy Luk'yanovich, Candidate of Technical Sciences, and Shalva Andreyevich Dzhabua, Candidate of Technical Sciences.

Konstruktivnyye skhemy i uzly krupnopanel'nykh zdaniy dlya seysmicheskikh rayonov  
(Construction Designs and Units for Large-Panel Buildings in Seismic Regions)  
Moscow, Gostroyizdat, 1961. 238 p. 5000 copies printed.

Ed. (Title page): S.Yu. Duzinkevich, Engineer; Ed. of Publishing House: B.A. Begsk; Tech. Ed.: V.A. Ignat'yev.

PURPOSE: This book is intended for engineers and technical and scientific personnel concerned with research and design of large-panel and other buildings for seismic regions.

COVERAGE: The authors discuss constructional problems of earthquake-resistant large-panel frame and frameless buildings. General principles of designing earthquake-resistant structures and data on the effects of earthquakes on brick and reinforced-concrete frame buildings are given. Various constructional designs and methods for jointing structural members in large-panel

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Construction Designs and Units (Cont.)

SGV/5700

buildings are described. Some of the most satisfactory solutions for designing earthquake-resistant constructions are recommended. Ch. I, "Effects of Earthquakes on Buildings," is stated to be based on experimental and calculation data. A.S. Kalmanok and D.A. Pitlyuk are mentioned as having contributed to this field. There are 93 references: 79 Soviet, 10 English, 2 French, 1 Hungarian, and 1 German.

TABLE OF CONTENTS:

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Ch. I. Effects of Earthquakes on Buildings	
1. Massive stone buildings	10
Effects of seismic forces acting perpendicularly to the plane of a wall	10
Effects of seismic forces acting along the plane of a wall	18
2. Reinforced-concrete frame buildings	59

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CHURAYAN, A.L.

Setting standards for masonry under seismic conditions. Truly  
FTI Turk.fil.AN SSSR no.1:15:28 '49. (MIRA 16:1)  
(Earthquakes and building) (Bricklaying)

DUZINKEVICH, S.Yu., red.; BYKHOVSKIY, V.A., red.; CHURAYAN, A.L.,  
red.; PETROVA, V.V., red.izd-va; KOMAROVSKAYA, L.A.,  
tekhn. red.

[Construction specifications and regulations] Stroitel'nye  
normy i pravila. Moskva, Gosstroizdat. Pt.2. Sec.A. ch.12.  
[Building in earthquake areas; standards of design] Stroi-  
tel'stvo v seismicheskikh raionakh; normy proektirovaniia  
(SNiP II-A. 12-62). 1963. 48 p. (MIRA 16:9)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam  
stroitel'stva. 2. Tsentral'nyy nauchno-issledovatel'skiy ins-  
titut stroitel'nykh konstruktsiy Akademii stroitel'stva i  
arkhitektury SSSR (for Bykhovskiy). 3. Institut stroitel'noy  
mekhaniki i seysmostoykosti AN Gruz.SSR (for Churayan).  
(Earthquakes and building)

CHURAYAN, A.L.; BYKHOVSKIY, V.A.

Calculated seismic resistance of framed single-story industrial buildings. Prom. stroi. 42 no.1:21-22 '65. (MIRA 18:3)

1. Institut stroitel'noy mekhaniki i seysmostoykosti AN GruzSSR (for Churayan). 2. Tsentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh konstruktsiy im. V.A. Kucherenko Gosstroya SSSR (for Bykhovskiy).

CHURAYEV, A. P.

TJ1160.A34

TREASURE ISLAND BOOK REVIEW

AID 853 - S

CHURAYEV, A. P.

SKOROSTNOYE REZANIYE V USLOVIYAKH POTOCHNO-MASSOVOGO PROIZVODSTVA (Speed Metal-Cutting in Mass Production). In Akademiya Nauk SSSR. Peredovoy opyt novatorov mashinostroyeniya (Progressive Experience of Leading Men in the Machine-Building Industry) 1954. Part I: Skorostnyye metody mekhanicheskoy obrabotki metallov (High-Speed Methods in Machining of Metals). p. 53-67.

The author, in collaboration with five other engineers at the Moscow Automobile Plant im. Stalin, reports that during the last six years a great number of machine tools at the plant have been adapted to higher speed operation. A list of various machine groups converted, the problems in conversion and the advantages achieved, and the hard alloys and geometrical parameters of the cutting tools, their design and construction, their characteristics and performance are given. Among several examples of the conversion of machine tools to higher speed operation, the adaptation of the multi-cutting cylinder-grinding machine and the profile facing multi-cutter machine is outlined. All new installations for making parts for the ZIS-150 are of a high-speed type. Eight drawings and 3 tables.

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CHURAYEV, A. P.

USSR/Engineering - Tools

Card 1/1      Pub. 128 - 9/34

Authors      : Churaev, A. F.

Title        : From the practice of using new types of tool materials

Periodical   : Vest. mash. 12, 34-38, Dec 1954

Abstract     : The use of new types of cutting tools and grinding wheels at the Stalin  
Automobile Factory in Moscow is emphasized, and a description is presented  
of cutting tools equipped with mineralo-ceramic cutting edges. Diagrams;  
drawings; tables.

Institution : .....

Submitted   : .....

CHURAYEV, Georgiy Pavlovich

[Power of an example] Sila primera. [Kuibyshev] Kuibyshevskoe  
knizhnoe izd-vo, 1957. 26 p. (MIRA 11:4)  
(Agricultural laborers)

ZYKOV, B.I., inzh.; NEKRASOV, V.A., inzh.; CHURAYEV, G.P., inzh.

Manufacture of peat litter slabs with a stamping press. Torf.  
prom. 39 no.7:25-27 '62. (MIRA 16:8)

1. Filial Vsesoyuznogo nauchno-issledovatel'skogo instituta  
torfyanoy promyshlennosti.  
(Peat industry—Equipment and supplies)

CHURAYEV, I., kand. sel'skokhoz. nauk

Plant protection in Cuba. Zashch. rast. ot vred. i boi. 10 no.6:  
49-50 '65. (MIRA 18:7)



Churayev, I. A.

7745      Amerikanskaya Belaya Babochka. Bil'hyus, Gospolithauchizdat, 1954.  
36 S. S Ill. 20Sm. 8,000 Ekz. 45K. -- Na Litov. Yaz- (55-3034)  
632.78

SO.      Knizhnaya Letopis', Vol. 7, 1955

Churayev, I. A.

7742 Amerikanskaya Belaya Babochkanovyi Vreditel' Rasteny, Kishinev,  
Gosizdat Moldavii, 1955, 47 S. S Ill. 20 Sm. 3.00 Ekz. Bespl.-  
55-4210 P 632.78

USSR/General and Special Zoology - Insects.

P.

Abs Jour : Ref Zhur - Biol., No 7, 1958, 30551

Author : Churayev, I.A.

Inst : -

Title : The Prognosis of the Dates of Appearance of the American White Butterfly.

Orig Pub : Zashchita rast. ot vredit. i bolezney, 1957, No 2, 49-61.

Abstract : According to laboratory experiments, the low temperatures at the beginning of various phases of development were: 9°- of the egg, 8.7°- of the larvae of the first hatching and of the pupae - 9.5°, while the sums of effective temperatures (SET) were equal to 135°, 420° and 162°. Under natural conditions, the SET calculated at 9° at the beginning of development, differed only slightly from those established in the laboratory. As for the prognosis of the second hatching the author prepared a table of indicators, which permitted the determination of the start of

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- 15 -

CHURAYEV, I. A. Cand Agr Sci -- (diss) "The white <sup>moth</sup> ~~American~~ butterfly  
(Hyphantria cunea Drury) and a system of measures for elimination <sup>ing</sup> its nidi."  
Len, 1958. 19 pp (Min of Agr USSR. Len Agr Inst), 150 copies (KL, 52-58, 105)

194-

CHURAYEV, I.A.

Albanian-Soviet Conference on Plant Quarantine and Protection.  
Zashch. rast. ot vred. 1 bol. 3 no.5:60-61 S-O '58.

(MIRA 11:10)

(Tirana--Plants, Protection of--Congresses)

CHURAYEV, I.A.

Harmfulness and specialized feeding habits of the fall webworm  
(*Hyphantria cunea* Drury). Trudy VIZR no.11:85-101 ' 58.  
(MIRA 12:1)

(Fall webworm)

CHURAYEV, I.A.

Problem of controlling potato beetles. Zashch.rast.ot vred.i  
bol. 4 no.3:43-44 My-Je '59. (MIRA 13:4)  
(Potato beetle)

CHURAYEV, I.A.

Fifteenth Afghan-Soviet Conference. Zashch. rast. ot vred. 1  
bol. 5 no.1:62 Ja '60. (MIRA 14:6)  
(Plants, Protection of ~~Congressess~~) (Afghanistan ~~Plants~~, Protection of)



CHURAYEV, I.A., kand.sel'skokhoz.nauk

More attention to quarantine. Zashch.rast.ot vred.i bol. 5  
no.7:1-3 J1 '60. (MIRA 16:1)

1. Zamestitel' nachal'nika Gosudarstvennoy inspeksii po  
karantinu i zashchite rasteniy Ministerstva sel'skogo khozyaystva  
SSSR.

(Plant quarantine)

CHURAYEV, I.A.; SHUTOVA, N.N.

Second Korean-Soviet Conference on Plant Quarantine and Protection.  
Zashch. rast. ot vred. i bol. 6 no.12:48-50 D '61. (MIRA 16:5)

1. Zamestitel' nachal'nika Gosudarstvennoy inspeksii po karantinu  
i zashchite rasteniy Ministerstva sel'skogo khozyaystva SSSR (for  
Churayev). 2. Zaveduyushchaya otdelom entomologii TSentral'noy ka-  
rantinnoy laboratorii (for Shutova).

CHURAYEV, Ivan Aleksayevich, kand.sel'khoz. nauk; SERGEYEV, V.I.,  
red.; PROKOF'YEVA, L.N., tekhn. red.

[American fall webworm]Amerikanskaia belaia babochka. Izd.2.,  
ispr. i dop. Moskva, Sel'khozizdat, 1962. 101 p.

(MIRA 15:9)

(Fall webworm)

CHURAYEV, I.A.

Controlling the Colorado beetle. Zashch.rast.ot vred.i bol. 7  
no.4:51-52 Ap '62. (MIRA 15:12)

1. Zamestitel' nachal'nika Gosudarstvennoy inspeksii po karantinu  
i zashchite rasteniy Ministerstva sel'skogo khozyaystva SSSR.  
(White Russia—Potato beetle—Extermination)

CHURAYEV, L.P.

**AUTHOR:** Feklistov, Ye. M., Engineer  
SOV/154-58-2-18/22

**TITLE:** Scientific and Technical Conference of the NIIGA 1 K (Nauchno-  
tekhnicheskaya konferentsiya NIIGA 1 K) III

**PERIODICAL:** Investiya vysshikh uchebnykh zavedeniy. Geodesiya i  
aerofotos"yehka, 1958, Nr 2, pp 115-116 (USSR)

**ABSTRACT:** In the section for aerophoto-geodetical and photogrammetrical  
instruments the following persons gave lectures: Professor  
M. M. Rusinov on "New Tendencies in the Production of Objectives  
in Instruments Used for Cartographical Aerial Photography."  
Professor A. N. Lohanny: "On Three-Dimensional Phototriangula-  
tion and the Use of Electronic Computers." Professor A. P.  
Mashkovich: "On Some Theoretical Statements With Regard to Ques-  
tions of Photogrammetry in Connection With the Production of  
Precision Instruments for These Purposes." Engineer M. V. Masov:  
"The Radio-Synchroniser for Simultaneous Photos From Two Air-  
planes." Professor K. S. Lyalikov: "Apparatus and Laboratories  
for Aerial Methods of the AS USSR for the Study of Spectral  
Intensity." Docent N. P. Zakasnov: "Making the Transformation  
of Aerial Photographs Automatic." Engineer L. P. Churayev:  
"Automatic Control of the AP4 Exposure." Engineer I. G.

Card 1/2

Indichenko: "Stereophotogrammetrical Coupled Cameras." In a  
joint session of the sections for geodetical and photogramme-  
trical instruments Engineer L. Ye Mindlin read a paper on "The  
Method of Heterodyne Phases in Geophysical Photos." Docent  
B. N. Rodionov reported on "The Problem of Making Aerial Pho-  
tography Automatic."  
Altogether, there were 32 lectures and reports given. 32 del-  
egates participated in the discussions.

CHURAYEV, N.V.

OPERATION OF SCREW IN HYDROPEAT SLURRY PUMP. Smirnov, V.D. and Churayev, N.V.  
(Turf. Prom. (Peat Ind.), Sept. 1951, 21-26

NEMOLVIN, N.S.: ISAYEV, D.K.: CHURAYEV, N.V.

Peat Industry

Small capacity pump-cranes for liquid peat, TMC-350. Tekst.prom. 12 No. 9, 1952.

9. Monthly List of Russian Accessions, Library of Congress, December 1952<sup>2</sup> Unclassified.

1. CHURAYEV, N.V., ISAYEV, D.K., NEMOLVIN, N.V.
2. USSR (600)
4. Peat industry
7. Investigating the work of a peat suction crane of a small hydraulic peat machine model TMG-350. Torf.prom. 29 no. 11. 1952

9. Monthly List of Russian Accessions, Library of Congress, February 1953, Uncl.



Study of the degree of dispersion of peat suspensions by  
means of a sedimentometer and an electron microscope.  
M. I. Lomunova and N. A. Gerasimova  
Novosibirsk, 1961  
The sedimentation of peat suspensions in water and in  
nearly identical particles of 1-2  $\mu$ m. Comparison with  
A. S. L. results in agreement with the results of Lomunova.

CHURAYEV, N. V.

USSR.

Study of the degree of dispersion of peat suspensions by means of a sedimentometer and an electron microscope. M. P. Volarovich and N. V. Churayev. *Colloid J. (U.S.S.R.)* 16, 243-6 (1954) (Engl. translation).—See C.A. 48, 14160a. H. L. H.

Pff

①

MINKOV, B.Ya., kand. tekhn. nauk; RODE, L.G., inzh.; SYSOYEV, A.A.,  
inzh.; CHURAYEV, N.V., kand. tekhn. nauk

Transistorized probe type thermometer for the control of  
milled peat temperature. Torf. prom. 39 no.5:8-9 '62.

(MIRA 16:8)

1. Kalininskiy torfyanoy institut.

VOLAROVICH, M.P.; GORAVSKIY, M.A. [Horawski, M.]; CHURAYEV, N.V.

Effect of the dispersion medium on filtration in peats. Koll.zhur.  
26 no.1:22-27 Ja-F '64. (MIRA 17:4)

1. Kalininskiy torfyanoy institut i Vrotslavskaya shkola sel'skogo  
khozyaystva, Pol'sha.

15-57-3-4029

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 3,  
p 212 (USSR)

AUTHORS: Volarovich, M. P., Churayev. N. V.

TITLE: A Study of the Dispersion Stage of Peat (Issledovaniye  
stepeni dispersnosti torfa)

PERIODICAL: Tr. Mosk. torf. in-ta, 1955, Nr 3, pp 33-58

ABSTRACT: A collection of papers is given on the study of the  
stage of dispersion in peat. The peculiar features of  
peat suspensions are noted and their behavior during  
sedimentational analysis, showing polydispersion,  
anomalies of density, and tendency to orthokinetic  
coagulation. A variety of sedimentation meter, appli-  
cable to peat suspensions, was made by N. A. Figurov-  
skiy. The authors present equations made from the  
results of using this sedimentation meter. Curves are  
also presented to show the distribution of particles,  
according to size, for peats of different stages of  
reworking and different stages of decomposition. The

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A Study of the Dispersion Stage of Peat (Cont.)

15-57-3-4029

results of electron-microscopic studies of the highly dispersed part  
of the peat are described.

Card 2/2

D. A. Ts.

CHURAYEV, N.V.

Answer to the letter of I.Z. Margolin. Koll. zhur. 17 no. 1:77 Ja-F '55.  
(Feat--Analysis) (Margolin, I.Z.) (MIRA 8:3)

CHURAYEV, N. V.

Investigation of the degree of dispersity of peat, M. P. M.  
Volarovich and N. V. Churayev, *Colloid J. (U.S.S.R.)* 17,  
187-90 (1955) (Engl. translation).—See C.A. 49, 14290c.  
H. L. H.

①

*Moscow Peat. Inst.*



CHURAYEV, N.V.

✓ Consideration of the dissolved substances in the disper-  
sion analysis of peat. M. P. Vokurovich and N. V. Churayev.  
Kolloid. Zhur. 18, 125(1956).—The error pointed out by L.  
(cf. preceding abstr.) usually is unimportant.

J. J. Bikerman

(2)

CHURAYEV, N. V.

Theory of a sedimentometer for the analysis of peat suspensions. N. V. Churayev (Peat Inst., Moscow). *Kolloid, Zhur.* 16, 220-6 (1969).--The rate of wt. increase of a sediment on the pan of a balance can be cited, from the rate of displacement of the balance beam; thus, no weighing in the usual sense is needed. A sedimentometer built on this principle gave reproducible results for a peat suspension.  
I. I. Birkman

CHURAYEV, H. V., and VOLAROVICH, M. P.

"Study of the Degree of Dispersion of Peats and the Structure of their Parts by Means of a Sedimentometer and Electron Microscope" (Issledovaniya stepeni dispersnosti torfov i struktury ikh chastits metodami sedimentometra i elektronnoy mikroskopa) from the book Trudy of the Third All-Union Conference on Colloid Chemistry, pp. 258-275

(Report given at above Conference, Minsk, 21-4 Dec 53)

{Authors: Moscow Peat Institute, Chair of Physics

CHURAYEV, N. V.

CHURAYEV, N. V.- "Application of the Sedimentometric and Electronmicroscopic Analysis Methods for the Study of the Degree of the Dispersion of Peat and of the Processes Involved in its Variation." Min of Higher Education USSR, Moscow Peat Inst, Moscow, 1955 (Dissertations for Degree of Candidate of Technical Sciences)

SO: Knizhnaya Letopis' No. 26, June 1955, Moscow

CHURAYEV, M.U.

10(4); 21(5); 24(8) PHASE I BOOK EXPLOITATION SOV/2457

Vsesoyuznaya nauchno-tehnicheskaya konferentsiya po primeneniyu radioaktivnykh i stabil'nykh izotopov i izlucheniya v narodnom khozyaystve i nauke. 2d. Moscow, 1957

Teplotekhnika i gidrodinamika: trudy konferentsii, tom 4 (Heat Engineering and Hydrodynamics); Transactions of the All-Union Conference on the Use of Radioactive and Stable Isotopes and Radiation in the National Economy and Science, Vol 4. Moscow, Gosenergoizdat, 1958. 88 p. Errata slip inserted. 2,500 copies printed.

Sponsoring Agencies: Akademiya nauk SSSR, and USSR, Glavnoye upravleniye po ispol'zovaniyu atomnoy energii.

Eds.: M. A. Steynikovskiy (Resp. Ed.), G. Ye. Khodolovskiy, and M. S. Reshetov (Ed. of Publ. House: L. M. Sineil'nikova; Tech. Ed.: M. I. Borunov.

PURPOSE: This collection of articles is intended for scientists and laboratory workers concerned with the use of radioactive and stable isotopes.

COVERAGE: This collection of papers deals with the application of radioactive and stable isotopes as measuring tools in various types of scientific investigation. No personalities are mentioned. References are given after some of the articles.

2. Bartolomey, G.G., Ya.G. Vinokur, V.A. Kolokol'tsev, and V.K. Petukhov. Use of Gamma Rays for Studying the Process of Diffusion 9

3. Rutalskiy, S.D., and V.M. Moskvicheva. Use of Gamma-ray scopy for Studying the Hydrodynamics of a Multifluid System 12

4. Poltavkin, P.G., and M.A. Shepkin. Method of "tagged" Atoms for Investigating Water and Steam Content in Surface Soiling of a Fluid 16

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14. Berta, M.A., L.S. Zharubin, V.S. Kaminskiy, and L.L. Korak. Investigation of the Hydrodynamics of a Fluid in the Centrifugal Rotor of a Settling Centrifuge With the Aid of Radioactive Isotopes 67

15. Volarovskiy, M.P., M.V. Churayev, and B.Ya. Minkov. Investigations of the Motion of Water in Peat Under Laboratory and Field Conditions With the Use of Radioactive Isotopes 72

16. Arkhangelskiy, M.M. Use of Radioactive Isotopes for Investigating Suspensions of River Silt 78

17. Yarnik, A.I., and A.S. Shubin. Use of Radioactive Isotopes for Investigating the Mechanism of the Drying Process 85 33

CHURAYEV, N.V. (Moskva)

Filtration of structurized fluids through heteroporous bodies.  
Izv.AN SSSR. Mekh,i mashinostr. no.1:136-140 Ja-F '64.

(MIRA 17:4)

*CHURAYEV N.V.*

VOLAROVICH, M.P.; KUZHMAM, G.I.; MAKOV, I.F.; CHURAYEV, N.V. (Moskva).

Using radioactive isotopes in studying the peat mixing process in machines. Izv. ~~AN~~ SSSR. Otd. tekhn. nauk no.12:87-89 D '57.

(MIRA 11:1)

1. Kafedra fiziki Moskovskogo torfyanogo instituta.

(Radioactive substances--Industrial applications) (Peat industry)

CHURAYEV, N. V.

124-11-12932

Translation from: Referativnyy Zhurnal, Mekhanika, 1957, Nr 11, p 94 (USSR)

AUTHORS: Volarovich, M. P., Churayev, N. V., Minkov, B. Ya.

TITLE: Investigation of the Hydraulic Characteristics of Peat With the Aid of  
Radioactive Isotopes. (Issledovaniye vodnykh svoistv torfa pri  
pomoshchi radioaktivnykh izotopov)

PERIODICAL: Kolloidn. zh. 1957, Vol 19, Nr 2, pp 159-166

ABSTRACT: Bibliographic entry.

*Moskovskiy torfyanoy Institut, Kafedra fiziki.*

Card 1/1



CHURAYEV, N. V.

20-5-13/60

AUTHOR VOLAROVICH, M.P., CHURAYEV, N.V., MINKOV, B.Ya.  
 TITLE Percolation of Water in Peat, Studied by Means of Radioactive Isotopes.  
 (Issledovaniye protsessa filtratsii vody v torfe s' pomoshch'yu radio-  
 aktivnykh izotopov - Russian)  
 PERIODICAL Doklady Akad.Nauk SSSR, 1957, Vol 114, Nr 5, pp 964-967 (U.S.S.R.)  
 ABSTRACT The author above all solved the problem of selecting a suitable  
 "marking" of the water, the motion of which is to be investigated in  
 the peat sample. After a number of experiments it was found that mar-  
 king by means of radioactive  $S^{35}$  (an aqueous solution of  $Na_2S^{35}O_4$ ) is  
 the most favorable. The percolation of the marked water was investi-  
 gated through peat samples with undestroyed structure. The peat samp-  
 le out out from the place where it was found was placed into a glass  
 tube and saturated with distilled water until a constant weight was  
 attained. Marked water was then poured into the tube on top of the  
 peat, and a constant level was maintained. The filtrate was then  
 poured into test glasses, on which occasion the time needed by the  
 filtrate to accumulate was noted down. The activity of the percola-  
 ted samples was measured by means of an end window counter.  
 The results obtained by these experiments with fiskum peat having  
 the degree of decomposition  $R = 10\%$  are shown in form of a diagram.  
 The same diagram shows the dependence of the volume  $V$  of the not  
 percolated liquid on the duration of the percolation process. This de-  
 pendence is nearly linear, which tends to indicate that the percola-  
 tion coefficient is constant during the experiment. The analysis of

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20-5-13/60

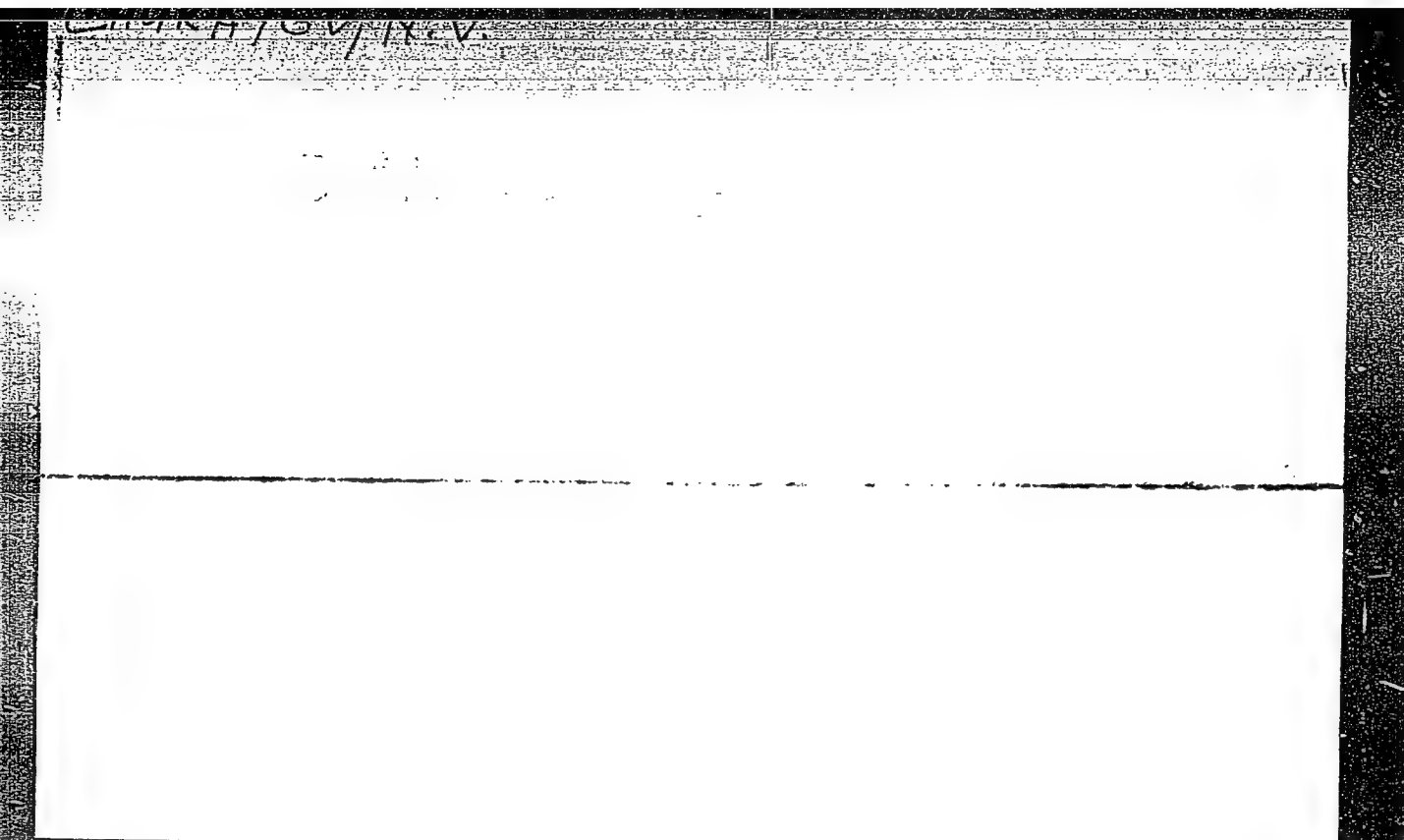
Percolation of Water in Peat, Studied by Means of Radio-active Isotopes.

the curve found indicates the following mechanism of the percolation: The water moving through the pores of the peat presses out the free water (gravitation water) contained in it. First the free water is pressed out from the large pores, after which it is pressed out successively from the smaller pores, until eventually the marked water fills up all passages in the peat through which the water is conducted. The activity of the percolator then is and remains equal to the activity of the marked water. By means of the method suggested here it is possible, together with the method of negative adsorption, to bring about a more exact separation of the types of the water contained in the peat. (2 illustrations).

ASSOCIATION Moscow Peat Institute.  
PRESENTED BY REBINDER I.A., Member of the Academy  
SUBMITTED 5.1.1957  
AVAILABLE Library of Congress.  
Card 2/2

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000509120019-4



APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000509120019-4"

CHURAYEV, N. V.

AUTHORS: Volarovich, M.P., Kuzhman, G. I., Makov, I.F. and Churayev, N. V. (Moscow). <sup>24-12-20/24</sup>

TITLE: Use of radioactive isotopes for studying the process of mixing of peat in machines. (Primeneniye radioaktivnykh izotopov dlya izucheniya protsessa peremeshivaniya torfa v mashinakh).

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1957, No.12, pp.87-89 (USSR)

ABSTRACT: The change in the degree of dispersion of peat during its processing can be established by means of sedimentary analysis, as described by some of the authors of this paper in earlier work (Ref.1). The process of mixing of the peat during its processing, i.e. the redistribution of the particles in the peat volume, leading to a uniformity of the structure of the peat has so far not been studied at all. Therefore, the authors considered it of interest to use for this purpose radioactive  $P^{32}$  in an aqueous solution of  $Na_2HPO_4$ , since the authors found in earlier work (Ref.2) that this substance adheres strongly to the peat particles. Specimens weighing Card 1/2 10 to 30 g were selected from the peat and this solution

24-12-20/24

Use of radioactive isotopes for studying the process of mixing of peat in machines.

was added in a quantity such as to obtain a radioactivity of 10 to 20  $\mu$  Curie; the peat was thoroughly mixed with the solution and was then made into a ball of 3 to 4 cm dia. The obtained results are plotted in graphs and discussed. Comparison of results of dispersion analysis with the data obtained for the intermixing leads to the conclusion that slot presses intermix satisfactorily the peat but do not disperse it satisfactorily, whilst milling with an end-mill brings about intensive dispersion but little intermixing. A number of recommendations are made for improving the design of machinery for peat production. There are 3 figures and 4 references, all of which are Slavic.

SUBMITTED: July 19, 1957.

ASSOCIATION: Physics Chair, Moscow Peat Institute. (Kafedra Fiziki Moskovskogo Torfyanogo Instituta).

AVAILABLE: Library of Congress.

Card 2/2

CHURAYEV, N.V.

104. A STUDY OF THE AQUEOUS PROPERTIES OF PEAT USING RADIOACTIVE  
ISOTOPES. 19 Volodrovich, M.P., Churayev, N.V. and Maslov, S.M.  
Dokl. Akad. Nauk SSSR, Moscow, 195, No. 13, pp. 155-156, 1959.

4  
4E3d  
1-RmL  
1-Jum

RmL

VOLAROVICH, M.P., prof.; KUZHMAN, G.I., dotsent; MAKOV, I.F., inzh.;  
CHURAYEV, N.V., kand.tekhn.nauk

Studying processes of peat mixing by the peat processing machinery  
using radioactive isotopes. Nauch. dokl. vys. shkoly; gor. delo  
no.1:275-285 '58. (MIRA 11:6)

1. Predstavlena kafedroy fiziki Moskovskogo torfyanogo instituta.  
(Peat machinery) (Radioisotopes)

CHURAYEV, N. V.

69-20-1-19/20

AUTHORS: Volarovich, M.P.; Sysoyeva, F.D.; Chernyavskaya, V.V.,  
Churayev, N.V.

TITLE: Determination of the Bound Water Content in Peat by the  
Method of the Negative Adsorption of a Radioactive Indicator  
(Opredeleniye sodержaniya svyazannoy vody v torfe metodom  
otritsatel'noy adsorptsii radioaktivnogo indikatora)

PERIODICAL: Kolloidnyy Zhurnal, 1958, Vol XX, # 1, pp 122-124 (USSR)

ABSTRACT: Radioactive sulfur  $S^{35}$ , in the compound  $Na_2SO_4$ , is used for  
determining the content of bound water in peat specimens. The  
natural humidity of the specimens is increased to 95% by ad-  
dition of distilled water. Then 20 g of ( $M_0$ ) solution of  
 $Na_2S^{35}O_4$  is added, and the mixture stirred. After 15 min the  
mixture is centrifugalized and the initial and final concen-  
tration of the radioactive indicator is measured. A formula  
for calculating the amount of bound water in the specimen is  
given.

There is 1 table, and 3 Soviet references.

ASSOCIATION: Moskovskiy torfyanoy institut Kafedra fiziki (Moscow Peat  
Card 1/2 Institute, Chair of Physics)



69-20-1-19/20

Determination of the Bound Water Content in Peat by the Method of the  
Negative Adsorption of a Radioactive Indicator

SUBMITTED: October 16, 1957

AVAILABLE: Library of Congress

Card 2/2

CHURAYEV, N.V., kand. tekhn. nauk

Using radioactive indicators to study the effect of a drainage  
system. Nauch. dokl. vys. shkoly; gor. dele no.1:21-25 '59.  
(MIRA 12:5)

1. Predstavlena kafedrey fiziki Kalininskego torfyanego (b. Moskovsk.)  
instituta.

(Drainage) (Radioactive tracers)

VOLAROVICH, M.P., prof., doktor fiz.-mat.nauk; MINKOV, B.Ya., inzh.;  
CHURAYEV, N.V., kand. tekhn. nauk

Investigating the efficiency of apparatuses for determination  
of peat weight by volume by means of gamma-ray scattering. Nauch.  
dokl. vys. shkoly; gor. dole no.1:75-82 '59. (MIRA 12:5)

1. Predstavlena kafedroy fiziki Moskovskogo torfyanogo instituta.  
(Peat--Testing) (Gamma rays)

VOLAROVICH, M. P. and CHURAYEV, N. V.

"The Investigation of the Physico-chemical Properties and the Structure of Peat,  
With the Aid of Radioactive Isotopes."

report presented at the Section on Colloid Chemistry, VIII Mendeleyev Conference of  
General and Applied Chemistry, Moscow, 16-23 March 1959.  
(Koll. Zhur. v. 21, No. 4, pp. 509-511)

5(

SOV/69-21-2-6/22

AUTHORS: Volarovich, M.P., Churayev, N.V.

TITLE: A Study of the Aqueous Qualities and Structure of Peat with the Aid of Radioactive Isotopes. (Izucheniye vodnykh svoystv i struktury torfa pri pomoshchi radioaktivnykh izotopov.)  
1. Aqueous Qualities and Structure of Peat. (1. Vodnyye svoystva i struktura torfa)

PERIODICAL: Kolloidnyy zhurnal, 1959, Nr 2, pp 157-163 (USSR)

ABSTRACT: The authors report on methods developed or used by them to determine the various forms of linked water in peat. The methods are based on the use of radioactive isotopes. For their experiments, the authors used the isotope sulphur-35 in the compound  $\text{Na}_2\text{SO}_4$ , which is not absorbed by peat in its solid phase. The comparison of the results of the determination of linked water in various peat specimens, which with the aid of the radioactive indicator were obtained by the use of the non-dissolving reagent and marked water filtration methods, permitted the evaluation of the different forms of linked water, and even the establishment

Card 1/3

SOV/69-21-2-6/22

A Study of the Aqueous Qualities and Structure of Peat with the Aid of Radioactive Isotopes. 1. Aqueous Qualities and Structure of Peat.

of such linkage categories as intercellular, structurally linked and capillary peat water. The experiments have shown that most of the linked water belongs to the capillary and intercellular categories. The content of the various forms of linked water depends on the botanical composition and the degree of decomposition of the peat. The method of filtering marked water through a peat specimen permits the determination of the active porosity, the kinetic specific surface and the hydraulic radius of the pores of the peat. This data can be utilized as characteristics of the peat structure. The following scientists are mentioned in the article: A.V. Dumanskiy, Rebinder, S.S. Korchunov, M.P. Volarovich, Gusev, P.A. Kryukov, N.A. Komarova, G.I. Pokrovskiy, S.I. Sinel'shchikov, K.K. Apush-

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SOV/69-21-2-6/22

A Study of the Aqueous Qualities and Structure of Peat with the Aid of  
Radioactive Isotopes. 1. Aqueous Qualities and Structure of Peat.

kin, A.A. Berezin, A.A. Grebenshchikov. There are 3 tables  
and 29 Soviet references.

ASSOCIATION: Moskovskiy torfyanoy institut (Moscow Peat Institute)  
Kafedra fiziki (Chair of Physics)

SUBMITTED: May 29, 1958

Card 3/3

5(4)

SOV/69-21-3-2/25

AUTHORS: Volarovich, M.P., Gamayunov, N.I., Starikova, Z.A.,  
Churayev, N.V.

TITLE: A Study of the Aquatic Properties and the Structure of  
Peat With the Aid of Radioactive Isotopes - 2. Changes  
in the Aquatic and Structural Properties of Peat, when  
Dispersed or Pressed

PERIODICAL: Kolloidnyy zhurnal, 1959, Vol XXI, Nr 3, pp 257-262  
(USSR)

ABSTRACT: The authors describe an experiment carried out with  
the aid of a radiotracer ( $\text{Na}_2\text{SO}_4$  with isotope  $\text{S}^{35}$ ) to  
determine the change in the aquatic properties and the  
structure of samples of dispersed and compressed peat  
of different processing stages. The used methods al-  
lowed measuring of the total water content of the  
samples, i.e. the measurings included the water within  
the cellular cavities of the plant residues, which  
constitute a considerable part of the peat. It was

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SOV/69-21-3-2/25  
A Study of the Aquatic Properties and the Structure of Peat With  
the Aid of Radioactive Isotopes-2 Change in the Aquatic and Structural  
Properties of Peat, when Dispersed or Pressed

observed that dispersing and compressing of the samples resulted in a diminution of their water content, due to the partial liberation of intracellular water and its passing into the free liquid. This was accompanied by destruction and deformation of the plant residues, which in its turn caused an increase in the active porosity of the peat, particularly in its disperse phase. It was further observed, that during dispersion and compression the kinetic specific surface of the peat considerably increases, whereas the diameter of the pores which determine the internal water transport, is reduced. The pressure needed to make a great part of intercellular liquid pass into free water does not exceed  $1 \text{ kg/cm}^2$ . It results therefrom, that this kind of water linkage in peat is energetically very weak. The methods developed by the authors permit their being used also for technological processes, which are con-

Card 2/3

SOV/69-21-3-2/25  
A Study of the Aquatic Properties and the Structure of Peat With  
the Aid of Radioactive Isotopes-2. Change in the Aquatic and Structural  
Properties of Peat, when Dispersed or Pressed

nected with the change in aquatic properties and the  
structure of peat. The following Soviet scientists  
(all covered by references) are mentioned in the ar-  
ticle: A.A. Berezin, I.D. Belovidov, I.M. Litvinov  
and M.G. Bulynko. There are 3 graphs, 2 tables and  
17 Soviet references.

ASSOCIATION: Moskovskiy torfyanoy institut, Kafedra fiziki  
(Moscow Peat Institute, Chair of Physics)

SUBMITTED: 19 June 1958

Card 3/3

VOLAROVICH, Mikhail Pavlovich; CHURAYEV, Nikolay Vladimirovich;  
PETRENKO, I.G., otv.red.; MEDER, V.M., red.izd-va;  
YEPIFANOVA, L.V., tekhn.red.

[Study of the properties of peat and of processes occurring  
in it by means of radioisotopes] Issledovanie svoistv torfa  
i protokaiushchikh v nem protsessov pri pomoshchi radio-  
aktivnykh izotopov. Moskva, Izd-vo Akad.nauk SSSR, 1960.  
195 p. (MIRA 14:2)

(Peat) (Radioisotopes--Industrial applications)

CHURAYEV, N.V.

~~CHURAYEV, N.V.~~

PHASE I BOOK EXPLOITATION SOV/5410

Tashkentskaya konferentsiya po mirnomu ispol'zovaniyu atomnoy energii. Tashkent, 1959.

Trudy (Transactions of the Tashkent Conference on the Peaceful Uses of Atomic Energy) v. 2. Tashkent, Izd-vo AN UzSSR, 1960. 449 p. Errata slip inserted. 1,500 copies printed.

Sponsoring Agency: Akademiya nauk Uzbekskoy SSR.

Responsible Ed.: S. V. Starodubtsev, Academician, Academy of Sciences Uzbek SSR. Editorial Board: A. A. Abdullayev, Candidate of Physics and Mathematics; D. M. Abduraisulov, Doctor of Medical Sciences; U. A. Arifov, Academician, Academy of Sciences Uzbek SSR; A. A. Borodulina, Candidate of Biological Sciences; V. N. Ivashev; G. S. Ikramova; A. Ye. Kiv; Ye. M. Lobanov, Candidate of Physics and Mathematics; A. I. Nikolayev, Candidate of Medical Sciences; D. Nishanov, Candidate of Chemical Sciences; A. S. Sadykov, Corresponding Member, Academy of Sciences USSR, Academician, Academy of Sciences Uzbek SSR; Yu. N. Talanin.

Car. 1/20

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Transactions of the Tashkent (Cont.)

SOV/5410

Candidate of Physics and Mathematics; Ya. Kh. Turakulov, Doctor of Biological Sciences. Ed.: R. I. Khamidov; Tech. Ed.: A. G. Babakhanova.

PURPOSE : The publication is intended for scientific workers and specialists employed in enterprises where radioactive isotopes and nuclear radiation are used for research in chemical, geological, and technological fields.

COVERAGE: This collection of 133 articles represents the second volume of the Transactions of the Tashkent Conference on the Peaceful Uses of Atomic Energy. The individual articles deal with a wide range of problems in the field of nuclear radiation, including: production and chemical analysis of radioactive isotopes; investigation of the kinetics of chemical reactions by means of isotopes; application of spectral analysis for the manufacturing of radioactive preparations; radioactive methods for determining the content of elements in the rocks; and an analysis of methods for obtaining pure substances. Certain

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Transactions of the Tashkent (Cont.)

SOV/5410

instruments used, such as automatic regulators, flowmeters, level gauges, and high-sensitivity gamma-relays, are described. No personalities are mentioned. References follow individual articles.

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7

Taksar, I. M., and V. A. Yanushkovskiy [Institut fiziki AN Latv SSR - Institute of Physics AS Latvian SSR]. Problems of the Typification of Automatic-Control Apparatus Based on the Use of Radioactive Isotopes

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Evdenko, N. P. [Nauchno-issledovatel'skiy institut yadernoy  
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Stepanov [Leningradskiy tekhnologicheskii institut im. Lomonosova  
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Card 15/20



VOLAROVICH, M.P.; GAMAYUNOV, N.I.; CHURAYEV, N.V.

Study of thermomoisture conductivity in peat. Koll. zhur. 22  
no. 5:535-542 S-O '60. (MIRA 13:10)

1. Kalininskiy torfyanoy institut.  
(Peat)

VOLAROVICH, M.P.; LISHEVAN, I.I.; CHURAYEV, N.V.

Humous sols from peat. Part 1: Structural and mechanical  
properties and their changes with the addition of electrolytes.  
Koll zhur. 22 no. 5:546-552 S-O '60. (MIRA 13:10)

1. Kalininskiy torfyanyy institut.  
(Peat) (Colloids)

VOLAROVICH, M.P.; MUKHINA, T.S.; TROPIN, V.P.; CHURAYEV, N.V.

Electron microscopy of peat and its components. Koll. zhur.  
22 no. 5:553-556 S-O '60. (MIRA 13:10)

1. Kalininskiy torfyanoy institut.  
(Peat)

CHURAYEV, N.V.

Use of radioactive isotopes in the study of moisture transport  
processes in peat. Koll. zhur. 22 no. 5:631-638 S-O '60.  
(MIRA 13:10)

1. Kalininskiy torfyanoy institut.  
(Peat) (Radioactive tracers)

BELIKOV, M.P.; YEMEL'YANOV, V.A.; NESTEROV, V.Ye.; CHURAYEV, N.V., kand.  
tekhn. nauk, nauchnyy red.; SAFONOV, P.V., red.izd-va; GOL'BERG,  
T.M., tekhn. red.

[Using radioisotopes in hydraulic engineering] Primenenie radio-  
aktivnykh izotopov v gidrotekhnicheskom stroitel'stve. Moskva,  
Gos. izd-vo lit-ry po stroit., arkhitekt. i stroit. materialam, 1961.  
162 p. (MIRA 14:9)

(Radioisotopes—Industrial applications)

23754

10.9020

S/170/61/004/006/010/015  
B129/B212

AUTHORS: Churayev, N. V., Gamayunov, N. I.  
TITLE: Study of the structure of porous media by radioactive indicators  
PERIODICAL: Inzhenerno-fizicheskiy zhurnal, v. 4, no. 6, 1961, 106-111

TEXT: Exact and approximate solutions of the differential equations for convective diffusion, which describe the filtration of pure water through pores, are obtained by the authors. A radioactive indicator is added to the water. The theoretical results are compared with the experimental ones. For the study of moisture transfer in disperse materials it is very important to obtain their structural characteristics. It has been suggested to picture the motion of the liquid in porous materials like the process of convective diffusion. The structure of the materials is characterized by the size of the convective diffusion coefficients; it is assumed that diffusion takes place because of the difference in dimensions and the arrangement of the pores. The experimental analysis of convective

Card 1/3

23754

Study of the structure of...

S/170/61/004/006/010/015  
B129/B212

diffusion in porous materials can be done with radioactive indicators. The water is filtrated through the test material under constant pressure. A radioactive indicator solution ( $\text{Na}_2\text{SO}_4$  with  $\text{S}^{35}$ ,  $\text{NaI}$  with  $\text{I}^{131}$  etc) is poured on top of the water. Single small samples are taken from the filtrate. The concentration of the indicator is determined by radio-metric methods. Exact approximate solutions of the differential equation for the convective diffusion are obtained. Experiments with the filtration of a solution of a radioactive indicator show that only for isotropic materials the experimental data will agree with the theoretical ones. The structure of isotropic materials (for example, sand with a grain size of 0.1-0.25 mm) can be characterized by the convective diffusion coefficient and the average dimensions of the pores. The size distribution of the pores corresponds to the Gaussian distribution. For non-isotropic materials (e.g. peat) the equation of convective diffusion is not applicable since the size distribution of the pores is not Gaussian. There are 2 figures and 7 references: 6 Soviet-bloc and 1 non-Soviet-bloc.

Card 2/3

23754

Study of the structure of...

S/170/61/004/006/010/015  
B129/B212

ASSOCIATION: Kalininskiy torfyanoy institut, Moskva (Kalinin Peat  
Institute of Moscow)

SUBMITTED: August 5, 1960

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CHURAYEV, N. V., GAMAYUNOV, N. I., and VOLAROVICH, M. P.

"Investigation of Heat and Mass Transfer in Peat by  
Radioactive Indicators."

Report submitted for the Conference on Heat and Mass  
Transfer, Minsk, BSSR, June 1961.

CHURAYEV, N. V.

PHASE I BOOK EXPLOITATION

SOV/5590

42

Konferentsiya po poverkhnostnym silam. Moscow, 1960.

Issledovaniya v oblasti poverkhnostnykh sil; sbornik dokladov na konferentsii po poverkhnostnym silam, aprel' 1960 g. (Studies in the Field of Surface Forces; Collection of Reports of the Conference on Surface Forces, Held in April 1960) Moscow, Izd-vo AN SSSR, 1961. 231 p. Errata printed on the inside of back cover. 2500 copies printed.

Sponsoring Agency: Institut fizicheskoy khimii Akademii nauk SSSR.

Resp. Ed.: B. V. Deryagin, Corresponding Member, Academy of Sciences USSR; Editorial Board: N. N. Zakhavayeva, N. A. Krotova, M. M. Kusakov, S. V. Nerpin, P. S. Prokhorov, M. V. Talayev and G. I. Fuks; Ed. of Publishing House: A. L. Bankvitser; Tech. Ed.: Yu. V. Rylina.

PURPOSE:- This book is intended for physical chemists.

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Studies in the Field of Surface Forces (Cont.)

SOV/5590

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COVERAGE: This is a collection of 25 articles in physical chemistry on problems of surface phenomena investigated at or in association with the Laboratory of Surface Phenomena of the Institute of Physical Chemistry of the Academy of Sciences USSR. The first article provides a detailed chronological account of the Laboratory's work from the day of its establishment in 1935 to the present time. The remaining articles discuss general surface force problems, polymer adhesion, surface forces in thin liquid layers, surface phenomena in dispersed systems, and surface forces in aerosols. Names of scientists who have been or are now associated with the Laboratory of Surface Phenomena are listed with references to their past and present associations. Each article is accompanied by references.

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CHURAYEV, N. V., Dr. Tech. Sci. (diss) "Water Properties,  
Structure, and Processes of Exchange of Moisture in Peat,"  
Moscow-Kalinin, 1961, 46 pp (Kalinin Peat Inst.) 200 copies  
(KL Supp 12-61, 261).

VOLAROVICH, M.P.; LISHTVAN, I.I.; CHURAYEV, N.V.

Comparative study of mechanical and chemical methods changing  
peat dispersity [with summary in English]. Koll.zhur. 23 no.4:  
399-403 J1-Ag '61. (MIRA 14:8)

1. Kalininskiy torfyanoy institut.  
(Peat) (Sedimentation analysis)

VOLAROVICH, M.P.; IL'IN, N.I.; CHURAYEV, N.V.

Radioactive-tracer techniques used in determining the water  
flow rate in porous media. Koll.zhur. 23 no.5:524-527 S-0  
'61. (MIRA 14:9)

1. Kalininskiy torfyanoy institut.  
(Hydraulics) (Porous materials)

CHURAYEV, N.V., kand. tekhn. nauk

Physical chemistry of peat. Torf. prom. 38 no. 3:8-11 '61.  
(MIRA 14:4)

1. Kalininskiy torfyanoy institut.  
(Peat)



VOLAROVICH, M.P., doktor fiz.-matem.nauk, prof.; IL'IN, N.I., inzh.;  
CHURAYEV, N.V., kand.tekhn.nauk, dotsent

Processes of water movement in draining upper deposits. Torf.  
prom. 38 no.7:9-13 '61. (MIRA 14:12)

1. Kalinskiy torfyanoy institut.

(Peat bogs)

(Radioisotopes--Industrial applications)

CHURAYEV, N.V., kand.tekhn.nauk

Macrostructure of peat deposits and its effect on drainage. Torf.  
prom. 38 no.8:20-23 '61. (MIRA 14:12)

1. Kalininskiy torfyanoy institut.  
(Peat bogs--Drying)

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Possibilities for applying the method of observation pits in  
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1. Kalininskiy torfyanoy institut.

(Peat)

(Radioisotopes—Industrial applications)

CHURAYEV, N.V.; IL'IN, N.I.

Effect of structure on the movement of water in capillary-  
porous bodies. Inzh.-fiz.zhur. 4 no.11:44-50 N '61.

(MIRA 14:10)

1. Kalininskiy torfyanoy institut, g. Moskva.  
(Hydrodynamics)